

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO  | ), F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|------|------------|----------------------|-------------------------|------------------|
| 10/092,339  |      | 03/05/2002 | Chang-Su Kim         | INTV.015A               | 7696             |
| 4586  | 7590 | 11/15/2006 |                      | EXAMINER                |                  |
|   |      | EIN & LEE  | AN, SHAWN S          |                         |                  |
| 3458 ELLICOTT CENTER DRIVE-SUITE 101<br>ELLICOTT CITY, MD 21043 |      |            |                      | ART UNIT                | PAPER NUMBER     |
|   | ,    |            |                      | 2621                    |                  |
|   |      |            |                      | DATE MAILED: 11/15/2000 | 6                |

Please find below and/or attached an Office communication concerning this application or proceeding.

| <u> </u>   |   | Application No.   | Applicant(s)  |  |  |  |
|--|---|---|---|--|--|--|
|  |   | 10/092,339  | KIM ET AL.  |  |  |  |
|  | Office Action Summary   | Examiner  | Art Unit  |  |  |  |
|  |   | Shawn S. An   | 2621  |  |  |  |
|  | The MAILING DATE of this communication app  | pears on the cover sheet wi   | th the correspondence address   |  |  |  |
| WHIC<br>- Exte<br>after<br>- If NC<br>- Failu<br>Any | IORTENED STATUTORY PERIOD FOR REPL' CHEVER IS LONGER, FROM THE MAILING D. Insions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Depriod for reply is specified above, the maximum statutory period vere to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing led patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNIC<br>36(a). In no event, however, may a re-<br>will apply and will expire SIX (6) MON<br>e, cause the application to become AB | CATION.  eply be timely filed  THS from the mailing date of this communication.  ANDONED (35 U.S.C. § 133). |  |  |  |
| Status   |   |   |   |  |  |  |
| 1)⊠  | Responsive to communication(s) filed on 18 A  | ugust 2006.   |   |  |  |  |
| • —  | ·   | action is non-final.  |   |  |  |  |
| ~=   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |   |  |  |  |
| •—   | closed in accordance with the practice under E  | •   | •   |  |  |  |
| Disposit   | ion of Claims   |   |   |  |  |  |
| 5)⊠<br>6)□<br>7)□                                    | Claim(s) 1-26 is/are pending in the application 4a) Of the above claim(s) 10-25 is/are withdray Claim(s) 1-9 and 26 is/are allowed. Claim(s) is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/o  | vn from consideration.  |   |  |  |  |
| Applicati  | ion Papers  |   |   |  |  |  |
| 10)⊠   | The specification is objected to by the Examine The drawing(s) filed on <u>05 March 2002</u> is/are: Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex  | a)⊠ accepted or b)□ objo<br>drawing(s) be held in abeyan<br>tion is required if the drawing(  | ce. See 37 CFR 1.85(a). (s) is objected to. See 37 CFR 1.121(d).  |  |  |  |
| Priority ι   | under 35 U.S.C. § 119   |   |   |  |  |  |
| a)(  | Acknowledgment is made of a claim for foreign  All b) Some * c) None of:  1. Certified copies of the priority document  2. Certified copies of the priority document  3. Copies of the certified copies of the priority document  application from the International Bureau  See the attached detailed Office action for a list   | s have been received. s have been received in A<br>rity documents have been<br>u (PCT Rule 17.2(a)).  | pplication No received in this National Stage   |  |  |  |
|  |   |   |   |  |  |  |
| Attachmen  | • •   | 🗖   |   |  |  |  |
| 2) ☐ Notic<br>3) ☑ Infor                             | ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date 9/4; 10/15; and 10/22.  | Paper No(s  | ummary (PTO-413)<br>)/Mail Date<br>formal Patent Application<br>  |  |  |  |

Application/Control Number: 10/092,339

Art Unit: 2621

#### **DETAILED ACTION**

## Response to Remarks

1. Applicant's election with <u>partial</u> traverse of the Species VIII representing Fig. 14, which reads on claims 1-5, 7-9, and 26 as filed on 8/18/06, has been acknowledged. Therefore, claims 10-25 are now treated as being withdrawn claims.

As per Applicant's partial traversal, the traversal is on the grounds that the Figs. 14-16B are directed to the same invention and Figs. 15-16B are directed to flowcharts for logic applied to the blocks of Fig. 14. Thus, it is believed that claims 10-22 are simply directed to a process of decoding a video bitstream using the blocks of Fig. 14 and claims 23-25 are directed to the flowchart for a redundant MV which is present in an encoded video bitstream which is also part of the block set up of Fig. 14, and it is further believed that claims 1-5, 7-9, and 10-26 are all directed to the same essential Species as provided by the block figure of Fig. 14.

In response, the examination of all of the claims 10-25 being directed to a process of decoding a video bitstream encoded with redundant MVs as represented by Fig. 15 (Species IX) and another process of decoding a video bitstream encoded with redundant MVs, where the process uses a redundant MV as a backup to a standard MV in response to a high error estimate as represented by Figs. 16A-16B (Species X) in addition to the elected claims 1-5, 7-9, and 26 as represented by Fig. 14 (Species VIII) does indeed create undue extra burden on the Office by virtue of the at least three distinct (independent) Species (VIII, IX, X) as discussed in the last Office action. The prior art searching and a prosecution clearly would be a burden (more time spent on extra searching and prosecution) based on the three distinct Species (VIII, IX, X).

The clear burden is met by the three distinct Species (VIII, IX, X) and the distinct (independent) is met by the diverse elements between the drawings, wherein one embodiment is not deemed obvious over any other Species identified.

Therefore, a reasonable search for Species VIII does not necessarily cover (encompass) other Species (IX, X), which is the main reason for the restriction/election requirement.

Page 3

Application/Control Number: 10/092,339

Art Unit: 2621

Moreover, the Examiner is following restriction/election guidelines to optimize a given (limited) search/examination time allocated for one Species/invention per application, regardless of the number of claims, thereby reducing undue pressure/burden (extra search and prosecution for additional Species) imposed upon the Examiner.

Lastly, since the non-elected dependent claim 6 depends from allowed independent claim 1, by virtue of dependency, the dependent claim 6 will be included as being an elected claim.

Therefore, requirement is now deemed proper and is therefore made FINAL.

### Allowable Subject Matter

2. Claims 1-9 and 26 are allowed.

Claims 1-9 and 26 include novel features for a video decoder for decoding encoded video information comprising:

a DEMUX for parsing data from the video bitstream;

motion decoder for receiving motion information from the demultiplexer;

wherein the motion decoder is configured to be able to decode motion
information for a standard motion vector, which is referenced to a previous frame, and
further configured to be able to decode motion information from a redundant motion
vector, which is referenced to a fame prior to the previous frame;

a texture decoder for receiving texture information from the DEMUX and decode a texture of the VOP; and

a composition circuit for combining multiple VOPs to generate a video frame.

The prior art of record fails to anticipate or make obvious the novel features.

Accordingly, if withdrawn claims are canceled, the application would be placed in condition for allowance.

#### Conclusion

3. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Application/Control Number: 10/092,339 Page 4

Art Unit: 2621

A) Kim et al (7,003,033 B2), System and methods for encoding redundant motion vectors in compressed video bitstreams.

- B) Moon et al (6,307,885 B1), Device for and method of coding/decoding image information
- 4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.
- 5. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHAWN AN PRIMARY EXAMINER